

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
1 July 2004 (01.07.2004)

PCT

(10) International Publication Number  
**WO 2004/054829 A3**

(51) International Patent Classification<sup>7</sup>: **B60J 7/08**, 48221 (US). THOMAS, John [US/US]; 1814 Chasc Drive, Rochester Hills, MI 48307 (US).

(21) International Application Number: PCT/US2003/040137 (74) Agents: GROSSMAN, Steven, J. et al.; Grossman, Tucker, Perreault & Pfleger, PLLC, 55 South Commercial Street, Manchester, NH 03101 (US).

(22) International Filing Date: 12 December 2003 (12.12.2003) (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language: English (Published: — with international search report)

(30) Priority Data: 60/433,132 13 December 2002 (13.12.2002) US

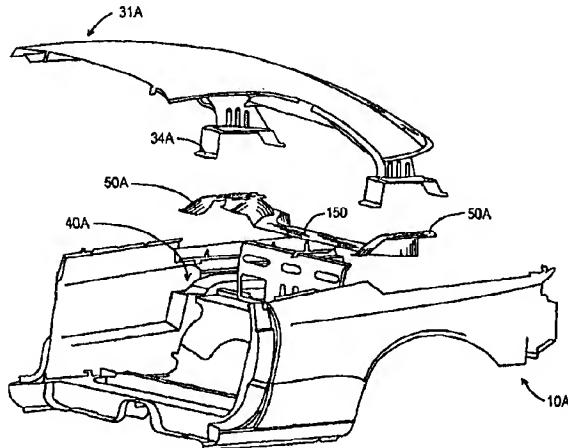
(71) Applicant (*for all designated States except US*): COLLINS & AIKMAN PRODUCTS CO. [US/US]; 350 Stephenson Highway, Troy, MI 48083 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): HARRISON, Albert, W., III [US/US]; 18430 Fairway Drive, Detroit, MI

*[Continued on next page]*

(54) Title: MULTIPLE ROOF CONFIGURATIONS FOR A SINGLE VEHICLE PLATFORM



(57) **Abstract:** An apparatus for use in a motor vehicle having a roof system, the motor vehicle further having a body with a passenger compartment and a trunk space, the apparatus comprising a roof system comprising any one of a rigid panel hardtop, a retractable hardtop moveable from an extended position disposed above the passenger compartment to a retracted position, or a soft convertible top movable from an extended position disposed above the passenger compartment to a retracted position, wherein any one of the rigid panel hardtop, retractable hardtop or convertible soft top includes an attachment bracket. A transverse support beam having a first end and a second end is included, the support beam carrying any one of the rigid panel top, the retractable hardtop or the soft convertible top, wherein the first end and said second end include universal adapter brackets. The universal adapter brackets are connected to the attachment brackets and to the vehicle body.

WO 2004/054829 A3



— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:  
2 September 2004